

COC # 29

11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132  
20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

(425) 420-9200  
(509) 924-9200  
(503) 906-9200  
(541) 383-9310

420-9210  
924-9290  
FAX 906-9210  
FAX 382-7588

## CHAIN OF CUSTODY REPORT

Work Order #: M105031

CLIENT: Bristol		INVOICE TO: Bristol										<b>TURNAROUND REQUEST in Business Days*</b> Organic & Inorganic Analyses <div style="display: flex; justify-content: space-around;"> <div>10 7 5 4 3 2 1 &lt;1</div> <div>STD.</div> <div>5 4 3 2 1 &lt;1</div> </div> Petroleum Hydrocarbon Analyses <div style="display: flex; justify-content: space-around;"> <div>5 4 3 2 1 &lt;1</div> <div>STD.</div> <div>OTHER Please Specify</div> </div> <p><small>*Turnaround Requests less than standard may incur Rush Charges.</small></p>							
REPORT TO: Anne Kraemer		P.O. NUMBER: 21090																	
ADDRESS: 2000 W. International Airport Cl		REQUESTED ANALYSES																	
PHONE: 770 0974 FAX: 770-0975																			
PROJECT NAME: Architka																			
PROJECT NUMBER: 21090																			
SAMPLED BY: Anne/Charlie																			
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	DRUGS	STEROIDS w/ Nephthyls	PCBs	Metals *											MATRIX (W, S, O)	# OF CONT.	COMMENTS	NCA WO ID
1. 01AMLA01RK	5/24/01 1420			✓	✓											○	○	Rocks	
2.																			
3.																			
4.																			
5.																			
6.																			
7.																			
8.																			
9.																			
10.																			
11.																			
12.																			
13.																			
14.																			
15.																			

RELINQUISHED BY: Charlie Marshall	FIRM: Bristol	DATE: 5/24/01	TIME: 1449	RECEIVED BY: KENL D. BHOW	FIRM: NCA	DATE: 5/24/01	TIME:
RELINQUISHED BY:	FIRM:	DATE:	TIME:	RECEIVED BY:	FIRM:	DATE:	TIME:

ADDITIONAL REMARKS: \* Note: Added metals as per SAP on 5/25/01 am. From SE corner of sewage lagoon. Rinsed w/ unfiltered lagoon water.

TEMP:

PAGE 1 OF 1



**Seattle** 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-9223  
425.420.9200 fax 425.420.9210  
**Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
**Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
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541.383.9310 fax 541.382.7588

6 December, 2001

Anne Kranawetter  
Bristol Environmental & Engineering  
2000 W International Airport C#1  
Anchorage, AK 99502-1116

RE: Amchitka

Enclosed are the results of analyses for samples received by the laboratory on 05/24/01 14:49. If you have any questions concerning this report, please feel free to contact me.

This report was recreated from a previously issued final report in order to provide an electronic copy. The final report used for these electronic copies may have been previously issued as an amended report due to client requested changes to sample names, etc. No data has changed since submission of the previously issued final, or amended, report.

Sincerely,

Stephen Wilson  
Environmental Group Leader

Work Orders included in this report:

**M105031**



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Bristol Environmental & Engineering  
2000 W International Airport C#1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
06/07/01 21:04

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
01AMLA01RK	M105031-01	Soil	05/24/01 14:20	05/24/01 14:49

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
06/07/01 21:04

**Polychlorinated Biphenyls per EPA Method 8082**  
**North Creek Analytical - Mobile Lab**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMLA01RK (M105031-01) Soil</b>					Sampled: 05/24/01		Received: 05/24/01		<b>P-02</b>
Aroclor 1016	ND	60.1	ug/kg dry	1	EPA 8082	05/24/01	05/26/01	0105055	
Aroclor 1221	ND	120	"	"	"	"	"	"	
Aroclor 1232	ND	60.1	"	"	"	"	"	"	
Aroclor 1242	ND	60.1	"	"	"	"	"	"	
Aroclor 1248	ND	60.1	"	"	"	"	"	"	
Aroclor 1254	ND	60.1	"	"	"	"	"	"	
Aroclor 1260	ND	60.1	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	106 %	55-130							
Surr: Decachlorobiphenyl	102 %	55-130							
<b>01AMLA01RK (M105031-01RE1) Soil</b>					Sampled: 05/24/01		Received: 05/24/01		<b>P-02</b>
Aroclor 1016	ND	141	ug/kg dry	1	EPA 8082	05/25/01	05/26/01	0105055	
Aroclor 1221	ND	282	"	"	"	"	"	"	
Aroclor 1232	ND	141	"	"	"	"	"	"	
Aroclor 1242	ND	141	"	"	"	"	"	"	
Aroclor 1248	ND	141	"	"	"	"	"	"	
Aroclor 1254	ND	141	"	"	"	"	"	"	
Aroclor 1260	ND	141	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	NR	55-130							S-02
Surr: Decachlorobiphenyl	128 %	55-130							

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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Environmental Laboratory Network



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Bristol Environmental & Engineering  
2000 W International Airport C#1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
06/07/01 21:04

**Total Metals per EPA 6000/7000 Series Methods**  
**North Creek Analytical - Mobile Lab**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
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**01AMLA01RK (M105031-01) Soil**

Sampled: 05/24/01 Received: 05/24/01

Arsenic	ND	0.250	mg/kg dry	1	EPA 6020	05/25/01	06/05/01	0105057	
Cadmium	ND	0.250	"	"	"	"	"	"	
Selenium	ND	0.250	"	"	"	"	"	"	
Silver	ND	0.250	"	"	"	"	"	"	
Chromium	ND	0.0500	"	"	EPA 7000	06/03/01	06/07/01	0106018	
<b>Lead</b>	<b>4.24</b>	0.0500	"	"	"	"	06/03/01	"	
<b>Mercury</b>	<b>0.0165</b>	0.00500	"	"	EPA 1631	06/04/01	06/04/01	0106016	

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
06/07/01 21:04

**Physical Parameters per APHA/ASTM/EPA Methods**  
**North Creek Analytical - Mobile Lab**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
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**01AMLA01RK (M105031-01) Soil**

Sampled: 05/24/01 Received: 05/24/01

% Solids	100	0.0100 % by Weight	1	Gravimetric	05/26/01	05/27/01	0105061		
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North Creek Analytical - Mobile Lab

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Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
06/07/01 21:04

### Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

#### North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 0105055 - 3545 ASE

##### Blank (0105055-BLK1)

Prepared: 05/24/01 Analyzed: 05/26/01

Aroclor 1016	ND	150	ug/kg wet
Aroclor 1221	ND	301	"
Aroclor 1232	ND	150	"
Aroclor 1242	ND	150	"
Aroclor 1248	ND	150	"
Aroclor 1254	ND	150	"
Aroclor 1260	ND	150	"

Surr: 2,4,5,6-Tetrachloro-m-xylene	69.0	"	66.7	103	55-130
Surr: Decachlorobiphenyl	64.6	"	66.7	96.9	55-130

##### Blank (0105055-BLK2)

Prepared: 05/25/01 Analyzed: 05/26/01

Aroclor 1016	ND	141	ug/kg wet
Aroclor 1221	ND	282	"
Aroclor 1232	ND	141	"
Aroclor 1242	ND	141	"
Aroclor 1248	ND	141	"
Aroclor 1254	ND	141	"
Aroclor 1260	ND	141	"

Surr: 2,4,5,6-Tetrachloro-m-xylene	75.9	"	62.5	121	55-130
Surr: Decachlorobiphenyl	77.6	"	62.5	124	55-130

##### LCS (0105055-BS1)

Prepared: 05/25/01 Analyzed: 05/26/01

Aroclor 1254	348	141	ug/kg wet	313	111	55-130
<i>Surr: 2,4,5,6-Tetrachloro-m-xylene</i>	<i>71.3</i>		<i>"</i>	<i>62.5</i>	<i>114</i>	<i>55-130</i>
<i>Surr: Decachlorobiphenyl</i>	<i>74.7</i>		<i>"</i>	<i>62.5</i>	<i>120</i>	<i>55-130</i>

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
06/07/01 21:04

### Total Metals per EPA 6000/7000 Series Methods - Quality Control

#### North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 0105057 - EPA 3050

##### Blank (0105057-BLK1)

Prepared: 05/25/01 Analyzed: 06/05/01

Arsenic	ND	0.250	mg/kg wet
Cadmium	ND	0.250	"
Selenium	ND	0.250	"
Silver	ND	0.250	"

##### LCS (0105057-BS1)

Prepared: 05/25/01 Analyzed: 06/05/01

Arsenic	0.890	0.250	mg/kg wet	1.00	89.0	80-120	
Cadmium	0.940	0.250	"	1.00	94.0	80-120	
Selenium	0.740	0.250	"	1.00	74.0	80-120	Q-08
Silver	0.990	0.250	"	1.00	99.0	80-120	

##### Duplicate (0105057-DUP1)

Source: M105031-01

Prepared: 05/25/01 Analyzed: 06/05/01

Arsenic	ND	0.250	mg/kg dry	ND	28.0	40
Cadmium	ND	0.250	"	ND		40
Selenium	ND	0.250	"	ND	28.0	40
Silver	ND	0.250	"	ND		40

##### Matrix Spike (0105057-MS1)

Source: M105031-01

Prepared: 05/25/01 Analyzed: 06/05/01

Arsenic	1.10	0.250	mg/kg dry	1.00	ND	94.1	75-125
Cadmium	0.880	0.250	"	1.00	ND	88.0	75-125
Selenium	0.820	0.250	"	1.00	ND	77.4	75-125
Silver	0.940	0.250	"	1.00	ND	94.0	75-125

#### Batch 0106016 - EPA 7471

##### Blank (0106016-BLK1)

Prepared & Analyzed: 06/04/01

Mercury	ND	0.00500	mg/kg wet
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North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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Bristol Environmental & Engineering  
2000 W International Airport C#1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
06/07/01 21:04

### Total Metals per EPA 6000/7000 Series Methods - Quality Control

#### North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 0106016 - EPA 7471

##### LCS (0106016-BS1)

Prepared & Analyzed: 06/04/01

Mercury	0.0102	0.00500	mg/kg wet	0.0100		102	85-115		
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##### Duplicate (0106016-DUP1)

Source: M105031-01

Prepared & Analyzed: 06/04/01

Mercury	0.0169	0.00500	mg/kg dry		0.0165		2.40	20	
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##### Matrix Spike (0106016-MS1)

Source: M105031-01

Prepared & Analyzed: 06/04/01

Mercury	0.0287	0.00500	mg/kg dry	0.0100	0.0165	122	75-125		
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#### Batch 0106018 - EPA 200/3005

##### Blank (0106018-BLK1)

Prepared: 06/03/01 Analyzed: 06/07/01

Chromium	ND	0.0500	mg/kg wet						
Lead	ND	0.0500	"						

##### LCS (0106018-BS1)

Prepared: 06/03/01 Analyzed: 06/07/01

Chromium	8.67	0.500	mg/kg wet	10.0		86.7	80-120		
Lead	10.2	0.200	"	10.0		102	80-120		

##### Duplicate (0106018-DUP1)

Source: M105031-01

Prepared: 06/03/01 Analyzed: 06/07/01

Chromium	0.0550	0.0500	mg/kg dry		ND			40	
Lead	4.19	0.0500	"		4.24		1.19	40	

##### Matrix Spike (0106018-MS1)

Source: M105031-01

Prepared: 06/03/01 Analyzed: 06/07/01

**Q-02**

Chromium	12.6	0.500	mg/kg dry	10.0	ND	126	75-125		
Lead	12.9	0.250	"	10.0	4.24	86.6	75-125		

North Creek Analytical - Mobile Lab

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Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
06/07/01 21:04

### Notes and Definitions

P-02 Results reported on 'As Received' basis. 100% solids value entered for calculations only.

Q-02 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.

Q-08 Unable to quantitate spike recovery due to matrix interference and/or dilution necessary for analysis.

S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.

wet Sample results reported on a wet weight basis (as received)

RPD Relative Percent Difference

North Creek Analytical - Mobile Lab

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**Environmental Laboratory Network**

8 of 8

### Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			Report recreated from: \\sisters\elmnt\Report\M105031 FINAL 06 07 01 2104.mdb Default Report (not modified)
0105057-BS1	Se Total ICPMS 6020	Selenium	Q-08
0105057-BS1	Se Total ICPMS 6020	Selenium	Exceeds lower control limit
0106018-MS1	Cr Total 7000 Series		Q-02
0106018-MS1	Cr Total 7000 Series	Chromium	Exceeds upper control limit
M105031-01	8082 PCB		P-02
M105031-01	Ag Total ICPMS 6020		Soil batched as Other dry
M105031-01	As Total ICPMS 6020		Soil batched as Other dry
M105031-01	Cd Total ICPMS 6020		Soil batched as Other dry
M105031-01	Se Total ICPMS 6020		Soil batched as Other dry
M105031-01	Solids, Dry Weight		Soil batched as Other dry
M105031-01RE1	8082 PCB		P-02
M105031-01RE1	8082 PCB	2,4,5,6-Tetrachloro-m-xylene	S-02
M105031-01RE1	8082 PCB	2,4,5,6-Tetrachloro-m-xylene	Exceeds upper control limit